Assembly Select Committee on Biotechnology

Informational Hearing on "Keeping Business in California

Agenda

January 12, 2005
10:00 a.m. to 12:00 p.m. in Room 444

Opening Remarks
Assemblymember Gene Mullin, Chair

Panel 1 Industry Overview – Regional

This panel will provide information on the life sciences industry with a regional perspective.

Panelists
Matt Gardner, President, Bay Area Bioscience Center (BayBio)
Jimmy Jackson, Vice President of Public Policy, BIOCOM San Diego
Michael Carpenter, California Healthcare Institute

Panel 2 Resources Offered by the State

This panel will provide information on resources currently provided by the state and efforts to expand the visibility of the life sciences industry.

Panelists
Curt Augustine, Deputy Secretary for Legislation, Business, Transportation and Housing Agency
Jaime Fall, Assistant Secretary, Workforce Strategies, California Labor and Workforce Development Agency
Ed Penhoet, Ph.D., Vice Chair, Independent Citizens Oversight Committee, California Institute for Regenerative Medicine
(SPEAKING NOTES NOT PROVIDED)

Panel 3 Keeping Business in California

This panel will explore the types of incentives types of incentives being offered by other states and how the state can be competitive in the current fiscal climate.

Panelists
Matt Gardner, President, Bay Area Bioscience Center (BayBio)
Andrea Jackson, Associate Director Government Affairs, Genentech

Public Comment

Closing Statements

PANEL 1

Assembly Select Committee on Biotechnology
January 12, 2006

Comments by

Matthew M. Gardner
President, Bay Area Bioscience Center (BayBio)

Good morning. My name is Matthew Gardner and I am President of the Bay Area Bioscience Center, also known as BayBio, a non-profit industry organization based in South San Francisco. BayBio is a membership organization with more than 270 members, ranging from single-employee life science start-ups to large biomedical companies of all types, as well as more than two dozen research institutes, colleges and universities, and a wide variety of stakeholders in the industry's well-being, from law and accounting firms to incubation facilities.

California—especially Northern California—has gained more than any other location from the national commitment to science and innovation since World War II. Six of the top twenty research institutions in the United States are in California, four of which reside in Northern California. The recent doubling of the NIH research budget under the Clinton Administration also led to sizeable gains for the state.

Our current biotechnology industry and research complex is an incredible culmination of many enabling technologies: molecular engineering, robotics, materials science, supercomputing, nanotechnology, microfluidics and clean manufacturing – all fields in which California has demonstrated long-run leadership in innovation.

Northern California as a region is unique for its critical mass in biotechnology – made more distinctive by its track record of successfully commercializing the innovations I summarized a moment ago. The companies based in Northern California represent a collective market capitalization of over $170 billion and employ more than 85,000 people. As a whole, the industry in Northern California invests $3.9 billion annually in research. By virtually any measure – jobs, products, number of companies, market cap – fully one-quarter to one-third of the U.S. industry is located in Northern California.

I review these familiar metrics not to emphasize that economic impact is the defining measure, but to preface the most important contribution of this industry: saving lives. In November of 2005, BayBio published a new report, BayBio: IMPACT, surveying the approved products in the U.S. healthcare market which are of Northern California origin. Some 240 life science products were delivered by Northern California life science companies, with more than two billion doses administered in the U.S. alone. BayBio:IMPACT also includes a summary of more than 200 Northern California products in phases II and III of clinical trials.

To put this productivity leap in perspective, it took the cumulative outcomes of three decades worth of research to arrive at the current batch of 240 products on the market; whereas the fate of the next 200 products will be determined in approximately the next 5 years.

All of these products are accompanied by new challenges. 8,000 new employees will be needed in the next year alone to manufacture and manage them, as well as bring them

through the complex regulatory process. Further, manufacturing and distributing the products will require massive investments in plants and equipment.

A review of our status in share of federal funds for research or number of products reaching patients could lead one to a sense of complacency. Yet who is to gain from these decades of California's investment and leadership in innovation? Early returns suggest the wrong answer: everyone else.

For California, the choice is a simple one. Act now or be overtaken.

Dozens of U.S. States and, equally importantly, many nations now have biotechnology strategies, and all 50 States now have programs that directly or indirectly support this industry. California is behind in adopting some of the methods now commonly in use to spur the growth – especially the employment growth – of the life science industry.

Before coming to potential policy vehicles, allow me to review recent examples of choices industry is making, while California contemplates its climate for life science investment.

Fremont-based Protein Design Labs established manufacturing operations in Plymouth, Minnesota to handle its production needs. Protein Design Labs later acquired a company in New Jersey to speed its development of a commercial operation, including sales and marketing. Fremont-based Abgenix, prior to its acquisition by Amgen, relocated its research operations to British Columbia – a move that should alarm public officials as signaling a possible end to previous maintenance of research headquarters by locally-based companies.

Globally, recent choices by multinationals including Pfizer and Schering-Plough might also illuminate us. Pfizer, upon acquiring Pharmacia, went through a series of operational downsizings until most recently, in the second half of 2005, when Pfizer announced research cuts across the board, impacting their last remaining California research site in San Diego. Schering-Plough recently went through similar internal decision-making regarding its two main research facilities in California, one in Palo Alto and another in San Diego. Ultimately, the San Diego site closure was announced in May, 2005 as the company shifted those people and resources to Palo Alto.

The mere fact that these decisions have been on-going should tell us all something about the need California has to establish an industry strategy, economic development strategy, and to understand and participate in these decision-making processes as a partner with industry.

So what can be done?

• Establish a central office of Bioscience, as was done in states like Connecticut and Michigan. This "life science ombudsman" should be established above any single agency so that inter-agency communications and protocols are not a limiting factor in how this office works within State Government to affect industry assistance. In part, this office can serve functions currently dispersed throughout Government, such as understanding and applying widely varied, existing assistance programs including the Industrial Development Financing Commission, Employment Training Panel and Discovery Grants to attract new investment.

• Upgrade and reform the State's regulatory environment. The State's so-called "smart

permit" system, CalGOLD, does not include any category of industry reflecting life sciences. We must move toward paperless processes and the State must find ways to encourage harmonization of regulatory requirements between local, sState and fFederal agencies.

• Further on permitting, California must explore fast-track property options. Our current system is not competitive with other states' "shovel-ready" programs, such as in New York and Indiana. California is regarded for project timelines for facility expansion. In the life science business, delays in land use processing for large projects may cost an investor 12 months or more – equating to a year or more of lost product sales for often financially sensitive companies and a year or more of lost treatments for patients.

• Pass AB 1037, the Single Sales Factor. Establishing this apportionment formula will help California-based life science companies remain competitive by taking into consideration the commitments they have made to operations and people in the state. • Establish a process by which Net Operating Losses may be sold at a discount to profitable companies. Many life science companies survive for more than a decade before their first product is approved by the FDA. Establishing a vehicle for the sale of NOLs by loss-making companies will dramatically impact their cash flows and, therefore, their survivability. The State's prospects of collecting corporate tax revenues from these high-risk ventures will, likewise, improve dramatically in those cases where companies might not otherwise survive.

• In workforce development, we sorely need a focused, coordinated approach to training capacity in the State's systems, especially including the community college and CSU systems. These programs are critical to the entry-level job growth in the industry. At present, disparate biotechnology programs are built on an ad hoc basis, sometimes at the expense of general education resources. These programs should be built according to an industry-wide plan and should include the medium-range commitment of the resources for new faculty, facilities and equipment that would end the present routine of crisis-to-crisis management on a shoestring in biotechnology workforce initiatives.

• Encourage large-scale investments by the private sector. Our business is a capital intensive one, requiring hundreds of millions of dollars of investment in research equipment and millions more in manufacturing equipment. For each new manufacturing facility, one job represents $1.5 million invested. To capture the next wave of investments, California needs a sales tax exemption for plants & equipment.

Thank you for the opportunity to speak with you this morning. We have tremendous growth opportunities in this very young industry and look forward to working with the State to take on these great challenges.

PANEL 1

Remarks to
Assembly Select Committee on Biotechnology
January 12, 2005

Jimmy Jackson
Vice President of Public Policy, BIOCOM

Good afternoon, my name is Jimmy Jackson, Vice President of Public Policy for BIOCOM, a regional trade association for the life sciences industry based in San Diego.

BIOCOM has a membership of over 470 stakeholders; our members include biotechnology and medical device companies, service providers, and academic or non-profit partners. Although our membership is primarily located in Southern California, we do have members from throughout California. We are very proud of the fact that BIOCOM is the largest life science trade association in the world.

As you know, biotechnology is just now reaching a period of major transition. Given the 10-15 year period it takes for most biologics to get approved for use by the Food & Drug Administration, much of the industry is just now beginning to see a movement from research and testing to a manufacturing mode. As such, BIOCOM has a membership that varies between startups with only a few employees, to large companies who are recognized international pioneers of the industry such as Genentech, who you will be hearing from in later in this hearing.

San Diego's biotech industry is generally recognized as one of the top three biotechnology clusters in the country, the others being the Bay Area and the Boston region. In San Diego's case, this is

primarily attributable to several world renowned research facilities that are based within a 5 mile radius of each other. They have fostered a number of biotechnology companies headquartered close to this research cluster. In fact, almost all of San Diego's life sciences cluster is within a 20 mile radius. The symbiosis created by this proximity has been an incredibly important factor in San Diego's development as a life science hub. In addition, many companies have become identifiable incubators whose scientists have gone on to become executives at other companies. The most notable of these is Hybritech, a life sciences company whose scientists went on to found or play significant roles in over 50 San Diego companies at last count.

But as these life science companies transition to manufacturing, proximity to research centers becomes significantly less important. Instead, economic and workforce issues become paramount. To convince these companies to develop manufacturing capacity in California, the state must become competitive with other states to attract the manufacturing jobs this industry will create. Many, many other regions and states have put a high priority on attracting biotech jobs because they are high paying, high skill, and environmentally friendly businesses.

I'd like to share with you a very recent example of a company, headquartered in California, which chose to expand in another state, in this case Ohio.

Amylin Pharmaceuticals is a San Diego-based company which has concentrated its research and development on products to treat obesity, diabetes, and cardiovascular disease. They have gone from 400 employees in 2003 to 1100 at the end of 2005. Amylin was recently in a position of needing production space for a recently approved diabetes drug, Byetta.

Amylin seriously considered four states: Ohio, Kentucky, North Carolina, Massachusetts, and California. Ultimately, it was decided to site the $70 million facility in West Chester, Ohio. This facility will generate 50 jobs within 3 years, and is hoped to employ 150 by 2009. It should be noted that, nationwide, the average biotechnology worker earns in excess of $50,000, so this is an incredibly large economic impact.

Between incentives offered by the County and the State, Amylin will receive an eight year, 75% tax break for the plant itself. The state of Ohio added an estimated $3.5 million in tax incentives for job creation, training, and other factors. In addition, Ohio recently enacted changes to its tax structure which eliminates taxes on tangible personal property and profits, reduces personal income tax by 21% and exempts sales taxes to destinations outside Ohio.

We in the California biotech industry don't expect that we will have a completely level playing field when it comes to incentives, but California as a state does need to be somewhat competitive if we are to capture our share of biotech jobs to be created in the next 10-20 years. The golden state can only market itself to a certain point. According to a 2004 report, no less than 29 states have adopted specific Bioscience Strategic Plans or a Technology Strategic Plan with a bioscience component.[1] California is not one of them. Of the 30 states that allow a Net Operating Loss Carryover, California is one of only 9 with less than 10 years of carryover allowed.[2]

What to Do?

1) Extension of the Net Operating Loss carryover period
2) Maintenance of the research and development credit—many of our companies have cited this as one of the few incentives still offered by the state

[1] Laboratories of Innovation: State Bioscience Initiatives 2004, Battelle Technology Partnership Practice and SSTI, pg. 29
[2] Ibid, pg. 32

3) Increased weighting of sales in determining corporate tax or a single sales factor model (such as contained in AB 1037)—eighteen states currently use some form of single sales apportionment for corporate taxation. For California to continue to base its tax on tangible property (such as capital equipment), payroll, and sales puts businesses who do a significant amount of business out of state at a competitive disadvantage.
4) Workforce training programs—the life sciences industry requires individuals with special skill sets. Not all of these jobs require PhD's. BIOCOM currently administers one of three federal grants in California for life sciences job training in the community colleges. The state should continue to fund these programs after these grants expire.
5) Adoption of a strategic plan with a commitment to enact legislation that makes the components of that plan attainable.
6) Increased commitment by the State to market California as a desirable business location at selected gatherings.

Are life sciences businesses "relocating" to other states? Not exactly. But are we losing jobs to these states? Most definitely. Will we lose more in the future? That may depend on what happens in these halls in the next few years. It is our collective challenge to forge a partnership between the life sciences industry and state government that will keep this industry of the future in California. Thank you for your time and concern for this issue.

PANEL 1

Comments of the California Healthcare Institute to the
Assembly Select Committee on Biotechnology
January 12, 2005
10:00 a.m. – 12:00 p.m.

The California Healthcare Institute (CHI) was founded in 1993 as an independent organization devoted to researching, developing, and advocating policies and actions that promote biomedical science, biotechnology, pharmaceutical and medical device innovation in California. Over the past 13 years, CHI has built a membership of over 250 leading biomedical companies, public and private academic research institutions and firms involved in supporting the biomedical community.

CHI's mission includes:

- Creating a favorable environment for the State's biomedical and health care technology community to discover, produce, and deliver products that benefit society.
- Providing a forum to identify, analyze, and develop positions on public policy issues that affect California's biomedical and health care technology interest.
- Conducting research as a basis for advocating responsible state and federal policies.
- Communicating to public officials, providers, patients, and the general public the value of the State's health care technology community for the health and economic well-being of our nation's citizens and the economic growth of California.
- Identifying and communicating the value of the products of health care technology with regard to cost, benefit, and patients' quality of life.

California's Biomedical Industry

California's biomedical industry is relatively young – nearly 90% of the state's biomedical companies were founded since 1980 – and until recently, the industry has been largely focused on research and development. But the industry is rapidly maturing as more products emerge from R&D and are approved by the FDA and companies establish and build manufacturing capacity. Despite escalating challenges – political uncertainties associated with the war on terror, federal efforts to curb spending on emerging therapies, scarce equity capital – California's biomedical industry has continued to grow. Whether this growth continues within or outside of the state of California, however, will in large part be determined by the actions of state government.

During the past decade or so, other states and foreign countries have come to see the economic value of the life sciences, and there is now strong global competition to lure companies away from California. Countries and other states staking their 21st century economic development on biomedical innovation are increasingly inviting California's biomedical companies to establish or expand their manufacturing and even their R&D facilities outside of California. With broad and attractive incentives elsewhere and few incentives being offered in California, there is little to stop companies from either leaving the state altogether, or expanding outside of it. And, as companies expand outside California, so go the jobs.

Is California Doing Enough?

California's biomedical industry is at a pivotal crossroad. What is at stake is nothing less than millions of dollars pouring into California for the construction of plants that could employ hundreds of high-tech workers in high-paying jobs. The dollars could come into California – or they could go to Arizona, Florida, North Carolina, Puerto Rico, Ireland, and Singapore – all of these governments and more proactively seeking to lure biomedical companies to build in their locale.

Proximity to R&D is the issue currently ranked as most important in influencing biomedical companies' decisions to establish or expand manufacturing inside or outside of California. While California has world-class research institutions, some companies claim that as they move to a more mature stage of development, proximity to R&D is becoming less critical to their success. The most-often stated challenges for companies are:

- High business and real property taxes and a lack of tax incentives to locate manufacturing in California
- High cost of living in California
- Expansion of litigation against California's businesses
- The need for a highly technically trained workforce; and
- Rapidly changing, complex, and restrictive business regulations.

Accordingly, while some within the California legislature believe California does not need to provide incentives because companies will continue to expand in California, a recent survey of CHI's member companies reveals otherwise. More than a quarter of California's biomedical companies plan to expand manufacturing outside the state in the next two years. Their plans reflect what these companies perceive to be serious challenges to their ability to grow and prosper in California.

PANEL 2
Assembly Select Committee on Biotechnology
January 12, 2006

Statement

Labor and Workforce Development Agency
and the
Employment Development Department

Representatives:

Jaime Fall, Labor and Workforce Development Agency
Fran Kennedy, Employment Development Department, Director's Office
Tim Taormina, Employment Development Department, Labor Market Information Division
John Billington, Employment Development Department, Labor Market Information Division

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We would like to take this opportunity to address this committee regarding our efforts at the Labor and Workforce Development Agency to assist and promote the growth and development of the Life Sciences Industry. This still emerging industry offers great promise to our economy and citizens. We will continue to learn about and invest in this high-growth high-wage sector, as the industry matures and develops.

At the Labor and Workforce Development Agency we provide three primary levels of support to the Life Sciences Industry through our departments and programs.

Direct Funding

The first level of support we provide is direct funding.

Workforce Investment Act (WIA) funds

Each year California receives about $450 million dollars from the Federal Government to conduct workforce and job training services through the Workforce Investment Act. This amount is approximately one-third LESS than what we received when the legislation was passed in 1998. The funds are distributed 85-percent directly to the 50 local workforce investment boards and 15-Percent is used by the state to pay for federally mandated activities, administration of the WIA programs and to fund pilot and demonstration projects.

At the state level, the money available for pilot and demonstration projects goes to three different funding priorities set by our state workforce investment board.
Those priorities are:

- Statewide areas of need – such as nursing
- Advancing workers to help them move up the career ladder and

- High-wage, high skill jobs which of course includes Life Sciences Industry

Since 2003, the Labor & Workforce Agency has committed approximately $6.5 million in WIA funds to address the workforce industry needs in the Biotechnology field. Projects enhance workforce development efforts that address the emerging labor needs within Southern California and Bay Area regions.

These projects bring together Local Workforce Investment Boards, education and business in a joint effort to prepare workers for this expanding industry. Additionally, several projects have received matching funds from foundations, education and business. Participating employers include, but not limited to, Abgenix, Bayer, Biogen/IDEC, Cell Genesys and Genentech

As a result of the locally designed workforce system, leadership of the industry, and the impact the industry has on the economy, we see some really exciting projects taking place at the local level to move workers who have been laid off from declining industries into the Biotechnology Industry providing high growth, high wage jobs with promising career pathways.

A good example of this kind of project is the Skyline/Genentech project. In 2003, the state gave the San Mateo Workforce Investment Board $940,000 in Workforce Investment Act funds to provide training for 80 workers who had been laid off from the airline industry as a result of 9-11 including paid work experience or internships with private employers. The San Mateo WIB, in conjunction with Skyline College and Genentech, developed a three-month training program to train bio-manufacturing production workers. This project has evolved into other related training efforts, which have been supported with additional Workforce Investment Act funding, and is a part of the award winning bio-manufacturing program at Skyline College. This project has also received national recognition from the U.S. Department of Labor and is a model for training bio-manufacturing workers.

Employment Training Panel (ETP)
The second area of direct funding to the Life Sciences Industry is through the Employment Training Panel.

In its current Strategic Plan, the Employment Training Panel (ETP) has prioritized funding for biotechnology and life sciences.

Since the Fall of 2004, ETP has approved 30 training agreements totaling more than $14 million for the training of nearly 11,000 workers in companies engaged in biological, pharmaceutical and genetic research, clinical testing, biological and pharmaceutical product engineering and manufacturing, and medical product and equipment distribution. These companies represent a diverse cross-section of the many biotechnology and life science businesses, within the broader California economy.

Three of these agreements approved by the Panel specifically target business expansion and the creation of new jobs, as part of larger statewide economic development initiatives. These projects total $3 million dollars, and will provide training for 1,500 new jobs with Genentech, Inc., Abbott Diabetes Care, and Edwards Life Sciences.

Partnerships to Promote the Industry

Agency/Department Liaison

In addition to directly funding job training projects, we also work with industry leaders to help them promote and build the Life Sciences Industry in California

A person is in place at the Employment Development Department to foster and continue ongoing relationships. This person serves as a contact and liaison for the industry, Agency and Department on workforce and other related issues. This person leads, coordinates and participates in efforts including the Bio Survey, BIO conferences, workforce investment projects, industry association meetings and outreach events.

BIO2006 coordination

Another example of our partnership with the industry is BIO 2006. BIO is the biotechnology industry's premiere annual international conference. Due to the growing efforts by other states and countries to lure California's companies and/or their expansions outside of our state, it is important for California to send a strong message, with a presence and demonstration of commitment at this conference.

In 2005 and 2006 we have worked to coordinate efforts between the state, industry associations, educational institutions, workforce investment areas, employers and economic development organizations to have a collective presence at this event as a state. With this type of collaboration we have increased our visibility and feel we are making strides in our participation at this event. Last year Secretary Bradshaw attended the event on behalf of the State and will attend again this year. The conference is once again in California in 2008 and we are building to have an even more powerful presence by that time.

Biotech Occupational Survey (Survey Summary distributed at hearing)

A third effort to build and promote the Life Sciences Industry is our work to collect and disseminate information on the Life Sciences Industry. In 2005, we surveyed 674 biotechnology and biomedical firms representing almost 85,000 workers in California. This survey was undertaken in collaboration with the Community Colleges Biotechnology Initiative, three Biotechnology Industry Associations, and Aon Consulting/ Radford Surveys, a private company that conducts compensation surveys in a number of industries. The three industry partners include:

- BayBio - representing the Bay Area,
- BIOCOM - representing the San Diego Area, and
- Southern California Biomedical Council - representing Los Angeles, Orange, and Ventura counties

Through this survey, EDD and its partners hoped to learn more about occupations in the biotechnology industry and the anticipated demand for these occupations. The response rate was much lower than expected in part due the highly-charged competitive nature of the industry, however we have been able to draw important conclusions and create relationships with the industry that are invaluable as we move forward to address workforce needs.

We believe the survey results shed light on the occupations used in biotechnology firms. For example, it is clear that biotechnology firms use many different occupations, as evidenced by the firms that responded to our survey reporting using 188 occupations. It is also clear that, at least for the firms that responded to our survey, the vast majority (72 percent) of employees in biotechnology firms need at least a four-year college degree. At the same time, however, a significant minority (25 percent) of biotechnology firms' employees requires only a high-school education.

The survey results will be useful to biotechnology industry associations and other interested parties in future efforts to better understand the occupations used in this industry and the relative demand for the different occupations. In addition, the process of developing the survey and marketing it, through this multifaceted group of interested parties, has helped to forge new relationships and partnerships for future data gathering and planning efforts.

Under the Microscope (Available at hearing)
The Labor Market Information Division (LMID) also offers information and analysis to support the growth of this industry. In 2004, the LMID published a career guidance tool designed to attract young people to the Biotechnology industry. *Under the Microscope: Biotechnology Jobs in California* provides an overview of the Biotechnology industry, plus a wealth of occupational information for students, job seekers, and career counselors on 36 biotechnology occupations.

Why Biotech in California? (Available at hearing)
This brochure was created for BIO2005 and will also be used at BIO2006 as part of the conference handouts for the state. It clearly points to California being the leader in U.S. biomedical research and production, and possessing the critical infrastructure needed to foster further industry growth.

Infrastructure to Serve the Life Sciences Industry

Finally, the Labor and Workforce Development Agency also offers two resources to help build the infrastructure of the industry.

CalBIS (Business Assistance)
The first resource is California Business Investment Services, known as CalBIS. CalBIS serves as the State of California's "front door" for employers, corporate executives and site location consultants considering California for new business investment and job creation. CalBIS works with traditional and technology-based manufacturing, distribution centers, headquarters and back-office operations.

CalBIS provides the business community with a single point of contact for easy access to business expansion and retention services. It serves as a catalyst for stimulating investment and job creation throughout California by building partnerships between the public and private sector through its services.

California Workforce Investment Board (CWIB) (See binder for detail on Board)

The California Workforce Investment Board (State Board) was established by executive order in October 1999 to assist the Governor in the State's implementation and continuous

improvement of its workforce investment and One-Stop service delivery systems. As the Governor's advisory body for workforce policy, the State Board plays a vital role in guiding and continuously improving the workforce system. This includes setting funding priorities, determining how to distribute funds to assist laid off workers, setting strategic direction for the state's network of one-stop career centers and ensuring the quality of those centers.

Conclusion

In conclusion, while given the 30-percent drop in funds for all workforce programs in the state, we have a number of services and initiatives designed to support the businesses in the Life Sciences Industry. Although we don't have enough resources to do all that we would like to do, we want and need to continue to develop the relationships with many of those here today. The Life Sciences Industry is new and has unique business dynamics. We are monitoring this industry closely and will work with industry leaders to focus our very limited resources and target our services where they can have the greatest economic impact for the industry and the state.

Workforce Investment Act (WIA)

Projects Related to Biotech

- Starting in 2003, the Labor & Workforce Agency has committed approximately $6.5 million in WIA 15 and 25 Percent funds to address the workforce industry needs in the Biotechnology field. Projects will enhance workforce development efforts that address the emerging labor needs within Southern California and Bay Area regions.
- These projects bring together Local Workforce Investment Boards, education and business in a joint effort to prepare workers for this expanding industry. Additionally, several projects have received matching funds from foundations, education and business.
- Employers such as Abgenix, Bayer, Biogen/IDEC, Cell Genesys and Genentech
- Many of the projects are moving dislocated workers from declining industries into the Biotechnology Industry providing high growth, high wage jobs with promising career pathways.

Subgrantee	***Project Operational Dates***	**Award Amount**
Los Angeles City	9/2003 to 12/2005	$500,000
Northern Santa Clara Valley Job Training Consortium	12/2004 to 9/2006	$235,200
San Diego Workforce Partnership	9/2005 to 12/2006	$1,620,000
San Diego Workforce Partnership	10/2003 to 6/2006	$678,546
San Francisco Private Industry Council	11/2004 to 6/2007	$250,000
San Francisco Private Industry Council	10/2004 to 3/2006	$250,000
San Mateo County	4/2005 to 6/2006	$653,800
San Mateo County	3/2003 to 3/2006	$940,000
San Mateo County	10/2002 to 12/2003	$749,550
Santa Cruz County	10/2004 to 9/2006	$250,000
Ventura County	6/2005 to 6/2007	$363,000
TOTAL		**$6,490,096**
Pending Project under consideration: Contra Costa		Approximately $2.4 million

WIA Biotech Related Project Descriptions

Subgrantee	Project Operational Dates	Award Amount	Project Description
Los Angeles City	9/2003 to 12/2005	$500,000	The project plans to prepare dislocated workers for jobs earning $30,000 to $50,000 per year in the life sciences sector. Life sciences projects are focused on biotechnology industries such as medical manufacturing, which is an expanding industry that requires workers with high skills, but not necessarily advanced academic degrees. Life sciences projects are career ladder programs that will prepare workers for careers as bio-manufacturing technicians, quality control technicians, and maintenance technicians. The Life Sciences Demonstration Project will specifically target dislocated workers from the aerospace and airline industry.
Northern Santa Clara Valley Job Training Consortium	12/2004 to 9/2006	$235,200	To support development of streamlined services for unemployed and dislocated workers seeking training and placement in health care careers. Grant activities to include the creation of a Healthcare Navigator position, which will guide one-stop clients to available training programs, financial aid programs, and workforce opportunities. In addition, NOVA WIB will work with the leadership of five local community colleges to explore solutions to training bottlenecks, and will finance additional sections of health care prerequisite classes for one year to address a current bottleneck to entering health care programs. An estimated 120 individuals will be served through these combined activities.
San Diego Workforce Partnership	9/2005 to 12/2006	$1,620,000	To train workers in the health and medical, computers and technology, business services, construction and trades, life sciences/biotechnology, telecommunications and travel, and tourism industries.
San Diego	10/2003 to 6/2006	$678,546	The Life Sciences project will enhance

Workforce Partnership			workforce development efforts that address emerging labor needs within the regions biosciences industry. The project will train 44 residents to work in the biosciences industry as Production Technicians. A large part of proposed project will be used on development of the biosciences training programs for the two manufacturing positions and on additional labor marker research to ensure that the programs are prepared to meet the expanding needs of the region's biosciences industry. Partners include Biogen/IDEC, MirCosta College and Milken Institute

Subgrantee	Project Operational Dates	Award Amount	Project Description
San Francisco Private Industry Council	11/2004 to 6/2007	$250,000	The Bay Area Workforce Funding Collaborative has approved a $375,000 award to the PIC of San Francisco to work with San Francisco Works in expanding the On-Ramp to Biotech Training Program. The award consists of $250,000 in program year 2004-05 WIA funds and a $125,000 Collaborative's Philanthropic Mutual Fund grant. With these foundation and employer funds, San Francisco Works will expand and replicate its On-Ramp to Biotech Training program.
San Francisco Private Industry Council	10/2004 to 3/2006	$250,000	This project is designed to make innovations to the Kaiser Permanente/Shirley Ware Education Center, SEIU Local 250 Career Mobility Training Partnership model and to broaden the scope of allied health upgrade occupational training available to low-income incumbent and adult workers. The Partnership proposes to broker its labor-management career ladder training model to other employers and with Mission College, create innovative healthcare ESL program models. Shirley Ware Education Center (SWEC) will provide career planning and counseling to low-income incumbent and adult workers as an expansion of their Health Care Career
San Mateo County	4/2005 to 6/2006	$653,800	For the development of the San Mateo Bridges project, designed to create career pathways in health care and life sciences industries for 65 disadvantaged adults and youth. Grant activities to include the creation of bridge programs at community colleges that are aimed at expanding the reach and availability of traditional allied health and life science career opportunities, including the incorporation of VESL, contextual English and math, academic, cultural support, and youth support services. Outcomes will result in post-secondary education and

			employment in the allied health and biotech sectors for targeted populations.
San Mateo County	3/2003 to 3/2006	$940,000	The Local Board, Skyline College, and Genentech are developing a three-month training program for bioscience production workers. The project creates career paths into the bioscience industry for laid off workers from San Francisco International Airport. Training is provided by community colleges with paid work experience or internships by private employers.
San Mateo County	10/2002 to 12/2003	$749,550	Provides career ladder opportunities to dislocated workers in the high growth industries of Bio-Technology and Healthcare.

Subgrantee	Project Operational Dates	Award Amount	Project Description
Santa Cruz County	10/2004 to 9/2006	$250,000	For the development of an X-Ray Technician training program for incumbent medical assistants in Santa Cruz County. Grant activities to include employer-specific curriculum development and recruitment, training, and support services for 20 participants. An additional 6 entry-level workers will receive on-the-job training in medical assisting in order to fill positions vacated by participants advancing to X-Ray Technician positions.
Ventura County	6/2005 to 6/2007	$363,000	The BioTech Career Pathway Project to address critical skills shortage created locally by a rapid and evolving biotechnology industry in Ventura County and throughout California. This project will train a minimum of 66 WIA eligible dislocated workers for high demand biotechnology occupations paying a range of $10 to $17 per hour. The industry is both the fastest growing in the County from 1990 to 2000 and accounts for the largest salary gain of over 40 percent among all local industries since 1999.
TOTAL		$6,490,096	
Pending Project - Contra Costa		$2.4 million	The proposed project will enhance workforce development efforts that address emerging labor needs within the region's bioscience industry. The project will train 240 eligible dislocated workers for biotech jobs for region's labor pool and provide eligible area residents access to jobs with annual earnings that range from $30,000 to $40,000 per year. The project brings together the Workforce Development Board of Contra Costa County, the Alameda County Workforce Investment Board, the San Mateo County Human Services Department, the City of Richmond Workforce Investment Board, Genentech Corporation, Bayer Corporation, Chiron, Abgenix, VaxGen, Genitope, Contra Costa Community

			College, Solano Community College, Peralta Community College District, and the region's EASTBAY *Works* One-Stop Career Center delivery system. The collaborative will leverage existing resources to support this initiative fully. The project will make a particular effort to train dislocated workers from the airline and aerospace industry including dislocated Delta and Northwest workers, and other manufacturing workers who have backgrounds in engineering, quality control, document review, instrumentation, air conditioning, and other specialties for retraining to high wage positions in the biosciences industry.

Employment Training Panel (ETP)

The Employment Training Panel (ETP) is a California State agency that began in 1983 and is designed to fund training that meets the needs of employers for skilled workers and the need of workers for good, long-term jobs. The program supports the California economy, primarily by funding the retraining of incumbent, frontline workers in companies challenged by out-of-state competition. ETP also funds training for unemployed workers, and prioritizes small businesses, and employers and workers in high unemployment areas of the State.

Biotechnology and life sciences are playing an increasingly important role in the State's economy. Therefore, biotechnology industry is a high economic priority in California. In its current Strategic Plan, ETP has prioritized funding for biotechnology and life sciences.

Since Governor Schwarzenegger took office in the Fall of 2004, ETP has approved 30 training agreements totaling more than $14 million for the training of nearly 11,000 workers in companies engaged in biological, pharmaceutical and genetic research, clinical testing, biological and pharmaceutical product engineering and manufacturing, and medical product and equipment distribution. These companies represent a diverse cross-section of the many biotechnology and life science businesses, within the broader California economy.

Three of these agreements approved by the Panel specifically target business expansion and the creation of new jobs, as part of larger statewide economic development initiatives. These projects total $3 million dollars, and will provide training for 1,500 new jobs with Genentech, Inc., Abbott Diabetes Care, and Edwards Life Sciences.

Research shows that California's biomedical Industry is playing an increasingly key roll in the State. Therefore, support for biotechnology and life sciences is essential for maintaining a strong California economy.

Overview of the
California Workforce Investment Board (CWIB)

The California Workforce Investment Board (State Board) was established by executive order in October 1999 to assist the Governor in the State's implementation and continuous improvement of its workforce investment and One-Stop service delivery systems. The State Board is mandated in the federal Workforce Investment Act (WIA), Public Law 105-220, which was passed in August 1998 to replace the Job Training Partnership Act.

The State Board is currently comprised of 36 active members appointed by the Governor, with a required majority of private sector members. The State Board Chair and Vice Chair are appointed by the Governor from the private sector members. The Governor is a member of the State Board as well, but, as a government official, may designate a representative to serve in his place. By statute, the State Board includes representatives of major businesses and industries, local government, organized labor, youth programs, educational programs, community-based organizations, and One-Stop programs, as well as others with expertise in workforce or economic development.

The State Board performs its responsibilities through committees and ad hoc partner workgroups. Committees conduct regularly scheduled public meetings, while workgroups meet as necessary to accomplish their goals. The State Board attempts to meet quarterly and adheres to federal and State public meeting law.

As the Governor's advisory body for workforce policy, the State Board plays a vital role in guiding and continuously improving the workforce system. Workforce programs help develop and maintain a trained and skilled workforce, which is one of the chief requirements cited by business and industry for sustained economic growth. Workforce programs also assist California youth in moving from school to careers, welfare recipients in moving from public benefits to independence, persons with disabilities in moving from dependence to self-sufficiency, laid-off workers in returning to comparable jobs, and businesses in coping with changing markets and downturns in the economy.

The Workforce Investment Act (WIA)

The WIA established reforms to the nation's job training system and provided guidance for a new workforce investment system to increase the employment, retention, and earnings of participants, and to increase occupational skill attainment by participants. The WIA is intended, as a result, to improve the quality of the workforce, reduce welfare dependency, and enhance the productivity and competitiveness of the nation. With a strong emphasis on private sector involvement, customer service, and better alignment of public sector resources, the system is intended to help both workers and employers compete and succeed in the challenging global economy.

The WIA is a five-year program and, as such, was scheduled for Congressional reauthorization in 2003. Both the House and the Senate have proposed reauthorization bills that incorporate proposals from the President and his administration, but agreement has not yet been reached on a final bill. In the absence of reauthorization, Congress is funding the WIA through a series of continuing resolutions.

California's Implementation of the WIA

California's implementation of the WIA began in July of 2000, with the Governor's designation of 50 Local Workforce Investment Areas (Local Areas) and certification of 50 Local Workforce Investment Boards (Local Boards). Implementation followed the submission to and approval by the DOL of *California's Strategic Five-Year Plan* for the WIA, which was developed by the State Board in consultation with State and local policymakers, partners, and stakeholders, as well as the general public. The Five-Year Plan ended on June 30, 2005, with approval of a new five-year plan beginning July 1.

Due to the uncertainty of federal reauthorization of the WIA, however, the DOL instructed states to submit only the first two years of the required new five-year plans in order to continue the WIA program. California developed its Two-Year Strategic Plan through an inclusive public process and the State Board approved it on May 12, 2005. The new plan provides the policy framework for the State Board's work over the next two years in achieving the Governor's vision for California's workforce system:

> *The State's broad system of public workforce programs prepare future and current workers for the new economy in order to create stable, reliable, higher-wage jobs that will assist in improving the quality of life for all Californians and their communities*.

The WIA system is governed by a federal/State/local partnership. The DOL, in coordination with federal agencies that administer other mandated workforce programs, such as Vocational Rehabilitation and Adult Education, oversees and administers the nationwide WIA and One-Stop systems. The California WIA and One-Stop systems are overseen and administered by the Governor, who has traditionally designated the California Employment Development Department (EDD) to administer federal job training funds and a business-led State Board to assist in overseeing the State systems and establishing statewide policy for workforce investment .

The State WIA system is comprised of 50 Local Areas, each with its own Local Board that is appointed by the local Chief Elected Official (CEO). The CEO represents a unit of local government or a consortium of units of local government, and is the local federal WIA grant recipient. Business-led Local Boards are certified by the Governor and assist the CEOs in administering and overseeing the local WIA and One-Stop systems. The network of local One-Stop systems is the statewide service delivery vehicle for workforce services in California. Local Boards, Local Areas, and One-Stop Career Centers are represented at the State level by the California Workforce Association, a key State Board partner.

WIA funds are used for job training, placement, and support services through the local system of One-Stop Career Centers. The One-Stop Career Centers provide universal access in their communities to a full range of WIA and partner program services to both individuals and businesses. The local One-Stop systems promote the linkage of the workforce system with economic development.

Board's Future Direction and Activities

Numerous issues with California's workforce system were raised during the public planning process that lead to the development of California's two-year strategic plan referenced earlier. The State Board, which has the primary responsibility for implementing the Plan, views these issues as key elements in its public policy agenda for the next two years. The State Board established four special committees to carry out the four priorities identified in the strategic Two-Year Plan. The four committees are outlined below, along with a brief summary of each.

Special Committee on Business and Industry: This committee focuses on how the workforce system can better serve business and industry, including State Board support for small businesses, and how that can translate into improved occupational and career opportunities for future and current workers.

Special Committee on Targeting Resources: This committee focuses on preparing workers for both available and future job opportunities, with an emphasis on using our workforce resources in ways that will best support economic growth in the State.

Special Committee on Lifelong Learning: This committee focuses on collaborating with public and private education and training providers to improve workforce-related lifelong learning and make it a critical, obtainable component of every worker's career.

Special Committee on Accountability in Workforce Investments: This committee, with an emphasis on partnerships, focuses on improving the general accountability of public sector, and the leveraging of private sector investments in preparing our workers for today's and tomorrow's jobs.

The State Board also has one standing committee, the Administrative Committee that oversees and coordinates the work of the special committees. The State Board's agenda is carried out through the work of the standing committee and four special committees as part of a continuous, open, and public planning process that engages all State and local stakeholders and partners, including the businesses and industries that are vital to California's economic stability and growth.

CALIFORNIA'S STRATEGIC TWO-YEAR WORKFORCE INVESTMENT ACT (WIA) PLAN EXECUTIVE SUMMARY

The following summary of the Plan provides a brief overview of:

- ✓ The Governor's workforce investment vision and priorities;
- ✓ The economic and labor market analysis contained in the Plan; and
- ✓ The broad, high-level workforce issues described in the Plan.

Vision and Priorities

California's entrepreneurial, innovation-based businesses require a world-class workforce in order to grow and thrive. In recognition of this, the Governor's vision is that the State's broad system of public workforce programs prepare future and current workers for the new economy in order to create stable, reliable, higher-wage jobs that will assist in improving the quality of life for all Californians and their communities. In order to achieve this, California's statewide, locally-based workforce investment system must be able to continuously prepare the State's available and future workers for careers in the industries and sectors that are most vital to the State's economic health and growth.

This can only be done if the business-led California Workforce Investment Board (State Board) and Local Workforce Investment Boards (Local Boards) continuously improve at:

- ✓ Understanding and meeting the workforce needs of business and industry, and taking full advantage of federal flexibility and waiver provisions;
- ✓ Targeting resources where the most economic impact can be gained;
- ✓ Collaborating to improve California's educational system at all levels in order to equip youth and lifelong learners with the skills they need to be successful in the workplace; and
- ✓ Maximizing the accountability of public and private resources invested in workforce development.

These four activities are key priorities in achieving the Governor's vision for California's workforce system. A brief discussion of each priority follows.

Understanding and Meeting the Workforce Needs of Business and Industry in Order to Prepare Workers for 21st Century Jobs

This priority includes the following:

- ✓ Increase State and local partnerships and linkages between the education, workforce, and economic development systems;
- ✓ Improve the shared accountability of publicly funded programs;
- ✓ Develop stronger partnerships with Local Boards;
- ✓ Promote policies supporting management/labor partnerships in "high road" industry sector initiatives;
- ✓ Provide policies supporting local business services; and
- ✓ Take full advantage of federal flexibility and waiver provisions.

Meeting the workforce needs of business and industry and improving California's business climate are the Governor's two primary goals for attracting, growing, and retaining business. California's robust, global economy, which is based on innovation and entrepreneurship, requires a transitional workforce that is continuously prepared with the skills and education necessary to support new and ever-advancing industries, occupations, and careers. In order to prepare available and future workers with the aptitudes and skills that business and industry require, the workforce and education systems must develop stronger partnerships and more effective communication with business and industry.

California's workforce investment system and the partnerships that comprise it are based in and directed by local and regional communities. Developing and supporting strong, business-led Local Boards that interact with and serve their economies both locally and regionally can ensure that California's workforce investment system will remain relevant by:

- ✓ Becoming increasingly demand driven;
- ✓ Eliminating duplicative administrative costs and services;
- ✓ Enhancing service integration through local One-Stop Career Center systems;
- ✓ Targeting youth program investments to those most in need;
- ✓ Continuing to improve workforce information systems;
- ✓ Partnering effectively with faith-based and community-based organizations,
- ✓ Taking full advantage of federal waiver flexibility; and
- ✓ Improving and simplifying performance accountability across programs.

Targeting Limited Resources to Areas Where They Can Have the Greatest Economic Impact

This priority includes the following:

- ✓ Focus these investments on –
  1. High-wage, high-growth jobs,
  2. Advancing workers with barriers to employment, and
  3. Industries and sectors experiencing statewide shortages of workers; and
- ✓ Track the effectiveness of investments and recommend shifts to new target areas as circumstances warrant.

These targeted investments will support high-skilled, high-growth industries such as Biotech that are creating new, high-wage jobs. The second priority targets resources to serve California's emerging and available workers, such as persons with disabilities or language barriers, who have significant barriers to employment and career advancement. The third priority targets industries that have a statewide impact, that are vital to the State's economic and societal stability, and are suffering significant shortages of workers in occupations such as nursing.

These are currently the three areas for which the targeting of resources will produce the most positive economic impact. The State Board, in its partnership with other workforce, education, and economic development programs will continually track these investments in order to recommend shifts to new target areas as the economy and workforce transition and grow.

Collaborating to Improve California's Educational System At All Levels

This priority includes the following:

- ✓ Strengthen career technical and vocational education at all levels of education;
- ✓ Increase the number of high school graduates;
- ✓ Promote partnerships between the State and Local Boards and education; and
- ✓ Align life-long learning opportunities with the new economy.

A flexible, outcomes-based education system is vital, at all of its levels from kindergarten through graduate studies, to providing both youth and adults with lifelong-learning opportunities that are aligned with the needs of the new and changing economy. It is critical, for instance, that California improve core K-12 education to prepare future workers with the skills and information necessary for careers in the 21st Century economy. The Governor also believes that all of California's youth, particularly those most in need, must have opportunities for successful careers, so the State is pursuing initiatives to:

- ✓ Increase the number of high school graduates, particularly within groups that now have higher than average non-completion rates;
- ✓ Strengthen the career technical and vocational education components within K-12 education, high schools, and community colleges;
- ✓ Establish coordinated strategies for improvement that include K-12, community colleges, adult education, and the University of California and California State University systems; and
- ✓ Use labor market and economic information in new and innovative ways to guide curriculum reforms in education and training.

The Governor and the State Board are partnering more closely with education in order to influence and achieve these outcomes. The blending of the workforce development and education systems is critical to sustaining and advancing California's economy and quality of life. The Governor's goal is to achieve a true continuum of education and training to support a workforce that can make the necessary transitions between occupations, industries, and careers through lifelong learning and skill advancement as the State's economy evolves.

Ensuring the Accountability of Public and Private Workforce Investments

This priority includes the following:

- ✓ Improve State and local government partnerships and coordination to achieve a more efficient use of public and private resources and direct savings into improved and expanded services such as workforce training; and
- ✓ Leverage federal and private sector commitments and resources; and
- ✓ Maximize the effectiveness and efficiency of the workforce investment system.

One of the Governor's first actions upon entering office was to order a top-to-bottom review of State government. In order to make state government more

effective and efficient, seven principles were established for building partnership, providing better service, and eliminating waste.

State and local governments must:

- ✓ ***Act as partners,***
- ✓ Communicate effectively,
- ✓ Have predictable funding,
- ✓ Be performance-based and accountable,
- ✓ Have clear roles and responsibilities,
- ✓ Be streamlined,
- ✓ Be flexible and innovative, and
- ✓ Change for the future.

As part of this effort, the Governor has directed the departments and agencies within his administration to significantly improve State government performance. Optimizing coordination and communication, and strategically sharing and investing resources are key initiatives in making California's public service infrastructure as effective and efficient as it can be. This is particularly true in eliminating duplication of services and achieving administrative efficiencies at both the State and local levels. Savings can then be directed towards improved public services such as workforce training.

As an example, the Governor is working actively with many State agencies to address economic development and workforce challenges across public systems. Among these governmental entities are the State Board; the California Department of Education; the University of California system; the California State University system; the California Community Colleges Chancellors Office; the Labor and Workforce Development Agency (LWDA); the Business, Transportation, and Housing Agency (BTHA); the California Health and Human Services Agency; the Employment Training Panel (ETP); the California Economic Strategy Panel; and the Governor's Commission on Jobs and the Economy.

These entities and others are coordinating and planning strategically to identify the economic, education, and workforce challenges facing California and to develop solutions to address those challenges. An important direction is to more

effectively coordinate and administer public funding for the programs and services these governmental organizations provide, as well as for the populations and businesses they serve. As one result of this, the LWDA and the BTHA have formed a new partnership to better coordinate the strategic business development, workforce investments, and services of their respective agencies. The LWDA and the State Board will continue to strengthen their partnership with Local Boards, local One-Stop Operators, and local partner programs in identifying administrative efficiencies and governmental cost savings in order to maximize the investment of available funds in training services in areas that currently have the most economic impact.

The Governor is also expanding State and local intergovernmental efforts to improve public/private partnerships in an effort to better coordinate public and private sector investments and resources. The private sector invests significant resources, both through businesses and foundations, in recruiting and training new employees, as well as in training existing employees for new and more demanding jobs. The public sector can more effectively leverage and employ private sector investments in the public workforce system if it can demonstrate strategic investments of its own, such as California's ETP funding. New accountability and administrative efficiencies, that result in expanded and improved services to both the citizens and the businesses of California, will also improve the public sector's ability to leverage private sector commitments and resources.

Summary of California's Economy

State's economic base

California has the largest labor market in the nation, with 14.5 million non-farm jobs (11 percent of the nation's non-farm jobs), and 385,700 jobs in the farm sector – a total of 14.9 million jobs in 2004. California's largest industries are trade, transportation and utilities (2.7 million jobs), government (2.34 million jobs), and professional and business services (2.16 million jobs). Natural resources and mining is the smallest (21,800 jobs.)

Projected growth and decline

Ninety percent of the industries projected to grow over the next decade are in the service-producing industries: administrative and support services; healthcare services; retail trade; accommodation and food services; and professional, scientific and technical services. Construction, which is a goods-producing industry, is also expected to grow fairly rapidly.

Industries forecast to decline over the next decade include manufacturing production industries in areas such as apparel manufacturing, computer and peripheral equipment manufacturing, and plastics manufacturing. The 50 occupations with the largest forecast growth over the next decade are expected to generate nearly 1.4 million new jobs and almost 1.7 million additional opportunities due to separations (vacancies left when an individual retires, changes careers, or leaves for personal reasons) – 3.1 million total job openings. The fastest growing occupations are concentrated in healthcare, construction, education, and computer related fields.

Demand for skilled workers

Skilled work is defined as jobs requiring at least long-term (12 months or more) on-the-job training, including work experience in a related occupation, vocational training, and college education through a first professional degree. The top 10 largest growth skilled occupations in California account for growth of approximately 341,000 new jobs in the next decade. These top growth occupations include registered nurses, general and operations managers, carpenters, elementary school teachers, computer software engineers (applications), police and sheriff's patrol officers, secondary school teachers, maintenance and repair workers, first line supervisors/managers of retail sales

workers, computer software engineers (system software), accountants, and auditors.

Jobs most critical to the State's economy

Critical jobs are linked to the U.S. Department of Labor's High-Growth Job Training Initiative, and dovetail with high-growth industries identified by the California Regional Economies Project. High Growth industries include advanced manufacturing, automotive, biotechnology, construction, geo-spatial, health care, hospitality, information technology, retail, energy, financial services, and transportation.

Common skills needs across industries

- ✓ Active listening – giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- ✓ Critical thinking – using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- ✓ Mathematics – using mathematics to solve problems.
- ✓ Reading comprehension – understanding written sentences and paragraphs in work-related documents.
- ✓ Speaking – talking to others, especially in English, to convey information effectively.

Demographics

The most populous state in the nation, California had 36.6 million residents as of July 1, 2004. Forty-seven percent of the residents are White; 33 percent are Hispanic; 11 percent are Asian; and 6.5 percent are Black. In 2004, California had 26.9 million working aged (16 and over) residents, of which 17.7 million were in the labor force – 16.6 million employed, and 1.1 million unemployed. California's population is slightly younger than the national population, and more diverse – with a substantially larger percentage of Hispanics.

The labor force is highly skilled – over 40 percent of the working population had a college degree, and three-quarters of these had a bachelor's degree or higher. In contrast, 16 percent of the workers aged 25-50 years have not received a high school diploma or General Equivalency Diploma. One-tenth of California workers in 2004 lived in a household where all adults spoke only Spanish.

In-migration/out-migration

Net migration (in-migration less out-migration) exceeded 200,000 persons per year in 23 of the past 30 years, 1975-2004. This accounted for more than half of the State's population growth in 17 of the 30 years. During the most recent year, net immigration contributed 283,600 new California residents – 47 percent of the total population change for that year.

Current and Projected Skills Gaps

Analytical tools that may help analyze skills gaps include studying changes in average industry wage levels, tracking training program completers in light of occupational projections, and tracking employer reported shortages. Using these methods, the State identified 15 occupations (11 of which are skilled) anticipated to have long-run shortages: accountants and auditors; automotive mechanics; carpenters; computer software engineers, applications and systems software; dental hygienists; elementary school teachers; heating, air conditioning, and refrigeration technicians; home health aides; general and operations managers; medical assistants; office clerks; police and sheriff's patrol officers; registered nurses; secondary school teachers; and truck drivers – heavy and tractor-trailer.

Key Workforce Issues

California has the nation's largest labor force and thus has a myriad of issues that the workforce development system must address to ensure that employers have a highly- skilled highly-trained workforce. While some of these issues were identified through an analysis of the economy and labor market, others were identified through the Two-Year Plan planning process.

The economic data suggest that three of the top ten largest-growth skilled occupations in California require long-term on the job training and most of the remainder require a bachelor's degree. At the same time, the data suggest that fewer students are graduating from high school and moving on to colleges. Issues for the system to address include:

- ✓ Is there sufficient funding in the system to address training needs? This question can be directly tied to a much broader question of what efforts need

to be undertaken to better understand expenditures, whether administrative or programmatic, to ensure that resources are being utilized effectively.

- ✓ How can career technical education be expanded to ensure that California's youth, particularly youth most in need, are prepared for the workplace and succeed in their academic and career goals?
- ✓ What career pathways are available for workers to transition to higher paying jobs?
- ✓ What additional efforts are required to build stronger partnerships among workforce development providers, given that resources are shrinking? How can California better connect students to employers?

The demographic data outline the increasing number of immigrants in California. Many of these immigrants are limited-English speaking. Issues for the system to address:

- ✓ What workplace competencies, including workplace literacy skills, can be developed to ensure that workers possess the skills that businesses need to succeed?
- ✓ How can the system better integrate with education and training partners, as well as business and industry, to address literacy barriers?

While addressing both economic and labor market issues, California must also address systemic issues. These include:

- ✓ How can the State ensure that One-Stop partners are paying their fair share? How can the One-Stop system better serve special populations such as youth, farmworkers, and individuals with disabilities? How can the local One-Stop systems partner more effectively and efficiently with the broad array of public and private workforce and workforce-related programs?
- ✓ How can the State better coordinate program activities such as performance measurement and monitoring in an effort to maximize resources?
- ✓ How can Local Boards and One-Stop Operators better meet the needs of their business communities? Currently, the types and intensity of business services varies among Local Areas. Is there a need to standardize business services?
- ✓ What waivers should the State pursue to more effectively manage the workforce development system, given limited administrative resources?

Continuous Planning

The State Board views the completion of the Plan as the first step in the Governor's efforts to redirect and improve California's workforce investment system by establishing stronger State-level leadership for the system that will align the system with the Governor's vision and priorities. Numerous issues with California's workforce system were raised during the public planning process. The State Board, which has the primary responsibility for implementing the Plan, views these issues as key elements in its public policy agenda for the next two years. That agenda will be determined and carried out by the State Board as part of a continuous, open, and public planning process that engages all State and local stakeholders and partners, including the businesses and industries that are vital to California's economic stability and growth.

California Workforce Investment Board
Member Roster

NAME	TITLE/AFFILIATION
Larry Gotlieb Chair, State Board	Vice-President of Government and Public Affairs and Associate Corporate Counsel, KB Homes
The Honorable Richard Alarcon	Member of the California State Senate
Cynthia Amador	President and CEO CHARO Community Development Corporation
Bob Balgenorth	President State Building and Construction Trades Council of California
S. Kimberly Belshe	Secretary Health and Human Services Agency
Norris Bishton	Attorney NOARUS Auto Group
Victoria Bradshaw	Secretary CA Labor and Workforce Development Agency
Ken Burt	Political Director California Federation of Teachers
Jerry Butkiewicz	Secretary/Treasurer San Diego/Imperial Counties Labor Council
The Honorable Wesley Chesbro	Member of the California State Senate
Jamil Dada	Senior Financial Manager Provident Bank – Riverside County Branches
Mark Drummond	Chancellor California Community Colleges
Chris Essel Vice-Chair, State Board	Senior Vice-President Paramount Pictures
Victor Franco	Vice President, Community Relations
The Honorable Jerome Horton	Assembly member, California State Assembly

NAME	**TITLE/AFFILIATION**
T. Warren Jackson	Vice President Workforce Diversity and Assistant General Counsel Hughes Electronics Corporation
Jim Kellogg	International Representative United Plumbers and Pipefitters Union
Kirk Lindsey	President Brite Transportation Systems
Sean Liou	President Specialty Computech
Richard Mendlen	Director Facility Operations Kennon S. Shea & Associates
Kathleen Milnes	President and CEO The Entertainment Economy Institute
Elvin Moon	President and CEO E.W. Moon Incorporated
Edward Munoz	Chief Government Affairs Officer Raytheon Company
Dwight Nixon	Regional Vice President Hub Group, Incorporated
The Honorable Jack O'Connell	State Superintendent of Public Instruction
Gayle Pacheco	President, Western Hardware Company
Pete H. Parra	Owner, Parra Family Foundation
Pat Paul	
Art Pulaski	Executive Secretary/Treasurer California Labor Federation, AFL-CIO
The Honorable Miguel Pulido	Mayor City of Santa Ana
Frank Quintero, Sr.	Director Alliance for Education

NAME	**TITLE/AFFILIATION**
Arturo Rodriguez	President, United Farm Workers of America AFL-CIO
James Shelby	President and CEO, Greater Sacramento Urban League
Audrey Taylor	President and CEO Chabin Concepts, Incorporated
Willie Washington	California Manufacturers & Technology Association
Sunne Wright McPeak	Secretary Business, Transportation and Housing Agency

PANEL 3

Assembly Select Committee on Biotechnology

January 12th, 2006

Comments regarding future incentives by

Matthew M. Gardner

President, Bay Area Bioscience Center (BayBio)

Thank you again for the opportunity to speak to you about California's opportunities for building upon its existing strength in biotechnology. To briefly re-introduce myself, my name is Matthew Gardner. I am president of the Bay Area Bioscience Center, also known as BayBio, which is a trade organization of more than 270 members, headquartered in South San Francisco.

As we discussed before, California faces a widening threat to its leadership in life science industry. As more states and nations build programs to support this industry, the gap between California and all followers is narrowed. Our industry is fast approaching a new era of productivity – an era which holds great potential for economic growth in the locations which are effective at attracting and supporting the industry.

I am going to take a few moments to present to you several approaches to economic development in life science that are increasingly in use around the United States. The programs that I summarize will by no means be a complete measure of the tools in use throughout the country, still we can gain an understanding of how much California can gain from the experience of others.

Since the elimination of the Technology, Trade and Commerce Agency, California has been without some of the programs that supported the growth and expansion of life science companies in the state. Beyond Trade and Commerce, there are also some programs recently adopted in several states which California has never enjoyed, and which hold great potential for furthering California's leadership in this industry.

I am going to summarize programs which stimulate growth in all sizes of enterprise, small, medium and large. There are a range of challenges that affect industry growth, each of which call for different types of programs. The rationale for states' economic development programs is generally the prospect for growth. Investment in the biosciences can also lead to improving health care, a cleaner environment and healthier foods. Biosciences are expected to grow at faster rate, in the next decade, than any other industry sector – 13% greater than average growth rate for overall U.S. employment. Biosciences offer high-skill, high-wage jobs across a range of occupations - $26,000 (US) more than the national average for the entire private sector.

The industry faces challenges and bottlenecks in processes such as intellectual property development, tech transfer, research funding, capital formation, facility

expansion, workforce development, and so forth. The programs I will describe commonly address such challenges.

First, in intellectual property development, several states have programs designed to support local firms through directly funding or attracting available funds for product development, prototyping, or collaborative research. The UC Discovery Grants program is an important example of this. Equally important, though was the short-lived program residing in the former Trade and Commerce Agency which supported small businesses in writing for federal grants such as SBIR, STTR, and other programs.

In the field of technology transfer, some states have established new programs to facilitate or speed the commercialization process. In Maryland, the Technology Development Corporation (TEDCO) has established a state-funded technology showcase event series, designed to encourage and directly facilitate licensing and commercial development of discoveries from universities, federal labs and private research institutions. While some California institutions, such as Stanford, Berkeley, UC San Diego and others, seem to have established best practice in tech transfer, there are literally dozens of others which could gain from these showcase opportunities. In several other states, these showcases are virtual, such as through the Federal Lab Consortium, a gatekeeper for federally-funded research. In California, the CONNECT programs in place at UCSD and

UC Davis are strong examples which could be broadened through regional economic development agencies to serve wider regional or state interests.

In research funding, California has been directly engaged in developing, funding and attracting federal support for centers of excellence such as the Davis Administration’s California Institutes for Science and Innovation initiative. Academic research funding enjoys consistent support in California. Private sector research, however, is regularly threatened. While many life science discoveries originate in the academic setting, virtually all technology and product development occurs directly within or in conjunction with the private sector. The State should maintain and R&D tax credit and could contemplate expanded competitive funding for small-company research on the model of the UC Discovery Grants.

In capital formation, California-based industry faces its most difficult challenges. California does well in some aspects of capital formation, including R&D credits and the dedication of CalPERS funds to the private equity portion of their asset spectrum. California has not done as well as many states at addressing its competitive disadvantages with regard to early stage investment, net operating

losses, tax credit transferability, and common support infrastructure such as incubators.

In Northern California, seed and early-stage funding has nearly halved over the past 5 years, as private equity sources push investment toward later-stage companies. More than a dozen states have established angel investment tax credits. As one such example, the Kansas Angel Investor tax credit provides accredited investors with tax credits against Kansas Income Tax liability for investments in seed and early-stage capital financing for emerging, qualified Kansas businesses. The Kansas program is limited to a $2,000,000 annual allocation cap and a $20,000,000 cumulative allocation cap for all approved participants through 2016. Similar programs exist in Arizona, Maryland, New Jersey, Ohio, Virginia, Wisconsin and elsewhere, with varying limitations and qualifications.

Also in the realm of capital formation, you have heard that many of our companies invest in R&D for a decade or longer before they learn the prospects for success of their products. This creates great strain on the mid-cap market, those publicly traded companies which have not yet received any product approvals and do not generate revenue on product sales. It is common practice for these companies to carry annual net operating losses year after year, accumulating into the tens or hundreds of millions of dollars. Several states, notably New Jersey, already allow companies based there to sell their net operating losses at a discount to profitable enterprises, establishing an entirely new source of cash flow, keeping companies alive and re-investing proceeds into further job growth and R&D. In New Jersey, the program allows NOLs to be sold for at least 75% of their value and involves a review and approval process through three departments – the New Jersey Economic Development Authority, New Jersey Division of Taxation, and the New Jersey Commission on Science and Technology. Similar programs for transferability exist in Arkansas, Connecticut, Idaho, Louisiana, Massachusetts, New Mexico and Pennsylvania, with varying limitations and qualifications.

With respect to facility investment and expansion, many states, including California, have initiated “smart permitting” and fast-track programs targeted at major investment opportunities. In California’s case, however, the smart permitting system in place, CalGOLD, does not currently recognize inquiries from biotech industry categories. While there is some capacity in several agencies for fast tracking investment prospects, we lack a central authority. CalGOLD and CalBis reside in EDD, the California Commission for Jobs and Economic Growth is independent and without a promotional budget to speak of, and there are others. A central authority, empowered to fast track projects and enable electronic and smart-permit harmonization, will carry California toward par with its competitor states.

Workforce development is increasingly a space in which California's competitive disadvantages put it at risk of being overtaken by other states making far greater investments. North Carolina is investing almost twenty times as much as California in biotechnology training programs. The population of North Carolina is 8.5 million, according to the U.S. Census Bureau. Most recently, North Carolina invested more than $60 million from its "Golden Leaf" program in biotechnology workforce training facilities, faculty and program operations. Similar programs exist in Arizona, Colorado, Maryland, Massachusetts, Michigan, New Hampshire, Ohio, Rhode Island, Virginia and elsewhere, with varying degrees of investment.

Finally, a few programs have been established around the country in a holistic approach to life science industry advancement. A few of these approaches are worth mention if at least to highlight the comprehensive nature of these strategies in comparison to California's approach. During 2005, the Washington State Legislature approved the Life Science Discovery Fund. The state will invest approximately $350 million from tobacco settlement income in life science research and industry development – at $35 million per year for 10 years starting in 2008. The fund was designed to match private investment dollars in an effort to generate $1 billion in total investment over the next decade. In Connecticut, a state Office of Bioscience was established in 2002 to coordinate and market support for life science industry through varied programs for seed investing, facilities expansion, tax credit transfers, sales tax relief, and more. In Michigan, a Life Sciences Corridor program was established through the state's economic development agency to coordinate and market support for the industry and attract investment.

The last aspect I want to touch on today is the state's overall approach to economic development. California has been virtually absent from the economic development, investment attraction and trade promotion scene for several years. While in some cases, the ball has been picked up by bootstrapping regional economic development agencies, the only true way to bring California back to the table in the big picture is to re-establish some authority to carry out trade promotion and investment attraction, with administration by economic development professionals trained in their craft. Opting not to attend or participate in one corporate real estate conference or another biomedical industry trade show in and of itself is not the central issue. The broader fact is that California does not currently have a reservoir of professionals whose function it is to represent and promote California and to weigh all of these opportunities in the context of strategy. An ad hoc approach to everything related to economic development does not serve the state and it will not advance an industry as complex as the life science industry.

As you have heard, there are many ways in which other states are leading California in supporting life science economic development. We have not discussed in this space even more aggressive programs such as the multi-billion

dollar Singaporean life science program, tech transfer tax credits in Canada and revolving innovation funds in use in Australia and elsewhere.
California has the opportunity to maintain its leadership in the life science industry, but the number of threats to this leadership are constantly on the rise.
Thank you again for your time.

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Assembly Select Committee on Biotechnology
January 12, 2006

Testimony of Andrea Jackson, Associate Director, State Government Affairs – Genentech, Inc.

Thank you for the opportunity to speak before you today. As you have heard today, the biotechnology sector is a key driver of California's economy. California's 30 year old biotech sector has created well over 200,000 high quality jobs and produced scores of products to address serious and life threatening illnesses.

Our young industry is on the cusp of huge growth in the manufacturing arena. The investments made in Research and Development are paying off with the large scale production of medications. In the next decade, biotech manufacturing will create thousands of new, high quality jobs for people with Associate and Bachelor degrees. Manufacturing is foot loose. It doesn't need to be connected to research facilities or universities. Some of this manufacturing will happen elsewhere, some will happen in California regardless of what we do, the vast majority, however, is up for grabs. And California is not well positioned to attract this new manufacturing growth.

So, What can the state do to make itself more competitive in capturing a share of the biotechnology manufacturing expansion?

First, an understanding of how companies make expansion decisions would be helpful.

The critical decision drivers for companies making site selection decisions are Cost and Timing.

Cost
A lead driver in siting decisions is cost. The major cost components include tax policy & credits, incentives, initial investment (land, building, and infrastructure costs), and operating costs.

Corporate income tax is typically the largest cost component after capital investment. The benefits of our locating in a single sales factor apportionment state, for instance, can be as much as 10% of the overall project cost.

TIMING
The need to produce a product for market quickly can drive a decision to site in a location where schedule savings would produce huge financial benefits on the backside, even though initial and operating costs may exceed those costs at alternative sites. Genentech's decision to expand its manufacturing facility in Vacaville was driven by

timing. When we made our decision, Genentech had experienced unprecedented success in the industry with three product approvals in just over a year, and we needed to go with the quickest route market. The shovel-ready site in Vacaville met this need.

Remarks by Dr. Susan Desmond-Hellmann, Genentech's President of Product Development, at the April 1, 2004 groundbreaking with the Governor highlight that point:

> Genentech would not expand manufacturing in California if we were not already based here in Vacaville, owned the land and secured the required permits that allowed a significant timing advantage to siting here. If we were to choose a new site in a more normal process, it would be very difficult to decide to stay in California. California is simply not competitive in major economic development decisions. Other states offer significantly better permitting, development and tax incentives.

So this brings us back to the question at hand: What can the state do to make itself more competitive in capturing a share of the biotechnology manufacturing expansion?

First, on the cost front, California must begin to level the playing field by enacting single sales factor apportionment; states without this tax policy are highly unlikely locations for investment in new facilities and jobs.

Second - once that field is even - other significant state actions should include:

- Creation of a variety of available, certified sites (pre-approved, shovel ready, streamlined permitting, utilities to the site, etc) that are either government owned or single ownership properties;
- Establishment of a dedicated project manager or ombudsman on board; and Ongoing aggressive efforts to understand and assist the company/industry with their needs in all areas of operations (i.e., regulatory, product support).

Biotechnology manufacturing growth is going to happen. Genentech alone has 30 viable projects in our pipeline. Hundreds more are being developed by the industry has a whole. The real question is whether you want this growth – and the high quality jobs that come with it – to happen in California. It has been years since the Governor or the Legislature has put forth an economic stimulus package in California. The time has come to invest in creating high quality jobs or Californians.

What Should CA Do?

1. **Protect the R&D Tax Credit**. California's investment in the R&D Tax Credit is starting to pay off with the development of medications and products that need to be manufactured. Genentech doubled our research footprint in 2003 and now devotes more than 500,000 square feet, 600 people, and more than 20% of our operating revenues to conducting research. Certainly the R&D Tax Credit played a significant role in this expansion.
2. **Enact Single Sales Factor Apportionment by passing AB 1037.** This version of SSF is scored as revenue positive. FTB estimates that closing the treasury churn loophole will generate +$273M between fiscal years 05/06 and 08/09. The phase in of SSF beginning in fiscal year 06/07 thru 08/09 is estimated to cost

$113M. The effect of these two provisions is a $160M revenue raiser on a net static basis.

3. **Lifing Tables.** Assessors are not bound to using either the BOE or the Assessors' Handbook in determining the value of biotech equipment for assessment purposes. The results are wildly different assessments county by county.
4. **Create Certified Sites for Biotech Manufacturing Facilities.** These shovel-ready sites would have permitting and approvals completed ahead of time in order to achieve schedule savings.